UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,301	12/14/2001	Naoya Hasegawa	9281-4209	7249

7590 04/26/2004

Brinks Hofer Gilson & Lione
P.O. Box 10395
Chicago, IL 60610

EXAMINER	
BERNATZ, KEVIN M	
ART UNIT	PAPER NUMBER
1773	

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	10/017,301	HASEGAWA ET AL.	
	Examiner	Art Unit	
	Kevin M Bernatz	1773	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *none*.

   Claim(s) objected to: *3-6 and 8-12*.

   Claim(s) rejected: *1,2,7 and 13-16*.

   Claim(s) withdrawn from consideration: *none*.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

KMB
4/28/04

Continuation of 5. does NOT place the application in condition for allowance because: applicants' arguments have been considered, but are not persuasive. Specifically, applicants argue that. "as claimed the nonmagnetic interlayer is only partly removed to have the bottom face of the laminate recess be located in the nonmagnetic interlayer" (*page 7 of response*) and that the prior art fails to teach or render obvious this limitation. In addition, applicants argue that the Torng et al. seed layer is different in function and/or placement to applicants' claimed nonmagnetic interlayer and cannot be relied upon to teach the location of the recess depth The Examiner respectfully disagrees.

The examiner notes that the specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968). The claims merely recite "a bottom face of the recess lying in the nonmagnetic interlayer", not that the nonmagnetic interlayer is only partly removed. The Examiner notes that the above limitation must be given the broadest reasonable interpretation in view of both applicants' as-filed disclosure and the knowledge possessed by one of ordinary skill in the art. For a "layer" separated into two portions (e.g. elements 230A and 230B of Mack et al., Figure 6B), the "bottom face of the recess" *is* within the thickness of layer 230 provided that none of layer 232 is removed. Furthermore, the Examiner notes that Mack et al. explicitly provides a teaching that one would not want to remove all of the nonmagnetic interlayer inorder to prevent any of the free layer (layer 232) from accidentally being etched away (*Mack et al., col. 4, line 61 bridging col. 5, line 11*). Finally, the Examiner notes that while Torng et al. calls the layer a "seed layer", it is a nonmagnetic layer located in the MR head at end of the spacing used to define the biasing elements, which set the track width (same in all references). The Examiner deems that since all layers effect the epitaxial growth of layers above them, technically all layers can be considered "seed layers" even if they have additional functions

Finally, applicants argue that the "additional sensitivity of the magnetic sensing element due to the laminate recess having a bottom face in the nonmagnetic layer is not disclosed or suggested by Mack" (*page 9 of response*), hence distinguishing the claimed invention over the prior art by the unexpected benefits.

Applicant(s) are reminded that ***a detailed description of the reasons and evidence*** supporting a position of unexpected results must be provided ***by applicant(s)***. A mere pointing to data requiring the examiner to ferret out evidence of unexpected results ***is not sufficient*** to prove that the results would be truly unexpected to one of ordinary skill in the art. *In re D'Ancicco,* 439 F.2d 1244, 1248, 169 USPQ 303, 306 (1971) and *In re Merck & Co*, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986). In addition, the scope of the claims must be commensurate with the showing of unexpected results, such as materials used, thickness values of the overall interlayer and thickness left above the free layer, etc. As such, the Examiner does not find applicants' argument of unexpected results convincing.

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700